



COMPANY PROFILE



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INTRODUCTION



Integrated Process Solutions Sdn Bhd is the only boutique engineering company focusing on process engineering and process safety, serving oil & gas industries in Malaysia. Providing proven quality and reliable services through commitment to schedule, competitive cost, and dedicated experienced personnel are our keys in ensuring we stay ahead of competitors; and working closely with clients is the foundation to our success.

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VISION

For IPS to be the most preferred process and safety engineering services provider for the Oil & Gas, Petrochemical and Energy Industries in Malaysia.

MISSION

We achieve our vision by:

- **Providing reliable services**
- **Providing innovative solutions**
- **Continuous improvement and learning**
- **Being customer focused**
- **Promoting awareness & presence**

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VALUES

Ownership

Integrity

Respect

Passion

Fun



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OUR PEOPLE

IPS is committed to developing local talents to participate and take advantage of the growth of the dynamic oil & gas industry.

IPS prides itself on the capabilities of its people to support Clients with dedication and commitment to carry projects to successful completion.

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BOARD OF DIRECTORS

IR. MOHD RAFAEL SHAMSUDIN

Managing Director

Ir. Mohd Rafael is a Chemical Engineering graduate of the University of Louisiana at Lafayette. He is a registered professional with the Board of Engineers, Malaysia and has 27 years of experience in engineering management and process design of oil & gas facilities. He manages the day-to-day operations of the company, manages resources efficiently and effectively to achieve the company objectives.

He has served a broad business clientele internationally which include National Oil Companies and major Oil & Gas operators and operating facilities such as ExxonMobil, Talisman Energy, Shell, Petronas Carigali, Newfield, Petrofac, Petronas Kerteh Refinery and others.

In a lead capacity, he has vast experience in all phases of the business, project, design, engineering and construction management of the full range of Oil & Gas facilities at offshore platforms and onshore facilities such as refineries and gas processing facilities.

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IR. ZURAINI MOHD JALI

Chief Operating Officer

Ir Zuraini Bin Mohd Jali is a Mechanical Engineer graduated from Universiti Teknologi Malaysia in 1993. A registered professional engineer with Board of Engineers Malaysia, Mr Zuraini has 26 years experience in oil and gas industries, locally and regionally. He started with Noble Denton Malaysia as a Mechanical Engineer cum Surveyor and later with INTEC Engineering SEA as a pipeline/senior pipeline engineer served for 6 solid years.

Zuraini was later headed a multinational company, Pegasus International/Pegasus Oil and Gas Consultants and later was appointed Managing Director of Pegasus Asia Pacific Sdn Bhd, a subsidiary of Petrofac Engineering Services Sdn. Bhd. He joined IPS in 2018 as COO and overseeing corporate affairs, general management, project & operations management and has significant experience in business strategy, business development, tendering & bidding and contract negotiations.

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IR. MOHAMED AJMEL HAFIZ JAMALUDIN

Director of Engineering

Ir Mohamed Ajmel Hafiz Jamaludin a Mechanical Engineer graduated from University of Southern California in 1997. A registered professional engineer with Board of Engineers Malaysia, Ir Ajmel has 22 years experience in oil and gas industries, locally and regionally. He started with Petronas Carigali Sdn Bhd as a Subsea Engineer and later with Petrofac as a Lead Subsea Engineer

Ir Ajmel has extensive oil and gas industry experience throughout the project lifecycle, on assignments throughout Malaysia, NorthWest Africa and China. Capabilities include various aspects of development, projects and operations, with emphasis on conventional offshore gas, marginal field, deepwater and subsea development. Good knowledge of Petronas review and approval systems. He has experience in asset acquisition, field assessment and asset / infrastructure planning through sales point, including minimum facilities applications, and advanced integrated development workshop facilitation. He also has wide experience in cost engineering, front-end loading, conceptual engineering and FEED. This experience covers both green field development and brown field re-development.

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FACILITIES ENGINEERING

ONSHORE AND OFFSHORE FACILITIES

- Feasibility Studies
- Field Development Plans
- Concept Select
- Front End Engineering Design
- Detailed Design



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SUBSEA UMBILICALS, RISERS AND FLOWLINES (SURF)

ONSHORE AND OFFSHORE FACILITIES

- Subsea Engineering
- Pipeline Engineering



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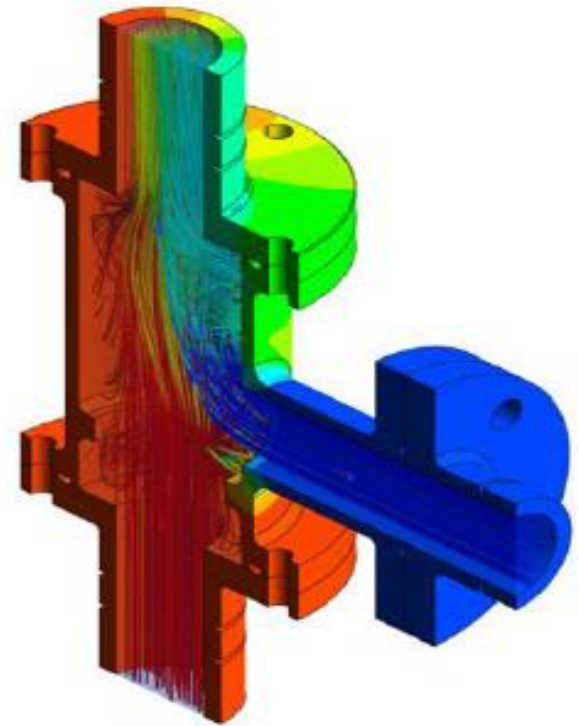
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SPECIALIZED STUDIES

ONSHORE AND OFFSHORE FACILITIES

- Flow Assurance (Transient / Steady State)
- Process Simulation (Dynamic / Steady State)
- Acoustic / Flow Induced Vibration Study (AIV/FIV)
- Noise Mapping
- Fire and Gas Mapping
- Flare / Vent (Radiation / Dispersion Analysis including Deflagration Studies)
- Fire and Explosion Modelling (2D and 3D)
- Computational Fluid Dynamics (CFD)
- Corrosion and Material Selection Studies (including CMP, CDBM)
- Corrosion Management Plans (CMP)
- Reliability, Availability and Maintainability (RAM) Studies



CFD Simulation In A Tee Pipe

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PROCESS SAFETY

ONSHORE AND OFFSHORE FACILITIES

- HSE Design and Safety Case
- Quantitative Risk Assessment (QRA)
- Formal Safety Assessment (FSA) Studies
 - Fire and Explosion Risk Assessment (FERA)
 - Escape, Evacuation and Rescue Assessment (EERA)
 - Emergency Survivability System Assessment (ESSA)
 - Temporary Refuge Impairment Analysis (TRIA)
 - Dropped Object Analysis
 - Safety Critical Elements & Performance Standards (SCE & PS)
- Loss Prevention Studies
 - Fire Water Demand and Hydraulic Analysis (including Surge Analysis)
 - Hazardous Area Classification (Drawings and Schedules)
 - Safety Layouts and Drawings
 - Safety Equipments Schedules and Specifications



- Safety Philosophies
- Hazard and Operability (HAZOP) Study
- Hazard Identification (HAZID) Study
- Safety Integrity Level (SIL/IPF) Classification & Verification
- Constructability Review
- Human Factors Engineering (HFE) Study
- Process Safety Audits

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OPERATIONS

ONSHORE AND OFFSHORE FACILITIES

- Operating Procedure Manuals (OPM)
- Detailed Operating Procedures (OP)



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TRAINING

- Oil & Gas Training Courses
- Project Management Training Courses
- Soft Skills Training Courses
- Leadership Training Courses
- Human Resource Training Courses
- Contract Management Training Courses
- Procurement Training Courses



DETAILED DESIGN OF FPSO ARMADA PERKASA

Process engineering portion for detailed design of processing facilities on FPSO Armada Perkasa. Facilities include separators, compressors, pumps and utilities.



BEKOK C OPERATING PROCEDURE MANUAL

Provide detailed operating descriptions of all process and utility facilities which include separators, compressors, pumps, utilities and control systems.



PETRONAS OPTIMAL ETHYLENE EXPORT PIPELINE DYNAMICS SIMULATION

Performed dynamic simulation for the export of ethylene from Optimal Plant, to simulate pressure surges, boil-off gas in pipeline to jetty and recycle to Optimal Plant Tankage.



PETRONAS D35 FIELD DEVELOPMENT PLAN

Develop conceptual options of existing D35 processing facilities to optimize oil and gas production from 22 new production wells.

Facilities upgrade includes 2 new compression trains and new separation facilities on an additional bridge linked processing platform. The new wells are located on existing wellhead platforms and new wellhead platform.



TALISMAN BUNGA KEKWA FLOW ASSURANCE TRANSIENT SIMULATION STUDY

Performed flow assurance transient simulation for the oil, gas and water injection pipelines within the Bunga Kekwa Field (Total of 8 pipelines). Objective was to determine operational slugging for the oil and gas pipelines and detailed hydraulic / pressure surge analysis for the water injection pipelines.



NEWFIELD EAST BELUMUT COMPUTATIONAL FLUID DYNAMICS STUDIES

Performed CFD to simulate fluid dynamic behavior due to the addition of a new process caisson which was installed to handle the increasing produced water discharges. The existing caisson was also currently seeing oil underflow from existing process caisson bottom opening. The CFD studies solved all oil underflow issues.



HAZOP / HAZID / SIL

IPS has performed more than 50 HAZOP / HAZID / SIL facilitations. Facilities range from full fledged offshore oil processing platforms to onshore facilities such as gas processing, power plants, refineries and ethylene and similar plants.



CORROSION STUDIES AND MATERIAL SELECTION STUDIES

IPS has performed numerous corrosion and material selection studies. Facilities range from full fledged offshore oil processing platforms to onshore facilities such as gas processing, power plants, refineries and ethylene and similar plants.



HEALTH, SAFETY AND ENVIRONMENTAL POLICY

In pursuit of high HSE standards and in adherence to all legislative requirements IPS shall :

- Observe and fully comply with all legislative requirements;
- Provide a healthy and safe work place for staff, clients and the public;
- Promote the health of its workers;
- Identify the hazards and assess the risks to prevent accidents;
- Protect and preserve the environment;
- Ensure safe working practices are followed.

QUALITY POLICY

IPS has an established Quality Policy as part of its Quality Management System in accordance to ISO 9001 requirements. We aspire;

- To achieve client satisfaction by providing quality services
- To continually improve the effectiveness of the Quality Management System and;
- To comply with client and any other applicable requirements.